Newsletter 58
Summer 2022

FRIENDS OF WAITE CONSERVATION RESERVE Inc.

COMING EVENTS

Summer Solstice Celebration
7:30pm
Wednesday
21st December
52 Furness Ave
Edwardstown
BYO BBQ
RSVP to Clint
clint.garrett@ozemail.com.au

President's message

The first sod was metaphorically turned on our new **direct seeding project** in September. No shovels were involved. Rather Caleb conducted the first weed spraying of our Stone Reserve site. The timing was a little late, but with a massive weed year on us we wanted to prevent super-charging of the weed seed-bank.

Fitted with a 4-metre boom and guided by GPS-navigation, the *Seeding Natives* quad bike made short work of the 2-ha site. Waist-high weeds elsewhere in the Reserve currently suggest we made the right decision.

Need for seed

Direct seeding requires prodigious quantities of very expensive seed - at least 20-kg/ha. We have three years to procure the seed before anticipated direct seeding in 2025.

Seed can be obtained from several sources:

1. gathered from the Reserve (as we do already for our annual tubestock production)
2. purchased from existing seed production areas
3. collected under permit from the wild by commercial seed collectors or
4. grown by us.

We hope to do all of the above: 1) collect extra from the reserve; 2) obtain from *Seeding Natives* production areas; 3) contract *Blackwood Seeds* to collect from the wild (this process has already started; we'll get better value for money by collecting now in a bumper year); and 4) explore the possibility of creating our own seed orchard.

A **Seed Orchard** is an intensive production area with thousands of closely-spaced irrigated plants to maximise seed yield. Importantly, it is also built to facilitate efficient harvest of clean, weed-free seed. It would house a mix of understorey species, concentrating on those not readily available by other means.

We have identified a potential site in Waite Arboretum and applied for a Friends of Parks Small Grant for 'seed money' to help establish it. Our application was accompanied by letters of support from the *Friends of the Waite Arboretum*, who would co-manage it and use some of the seed to restore native grassy understorey in the Arboretum; and from *Urrbrae TAFE* for which the facility would provide student learning opportunities.

If successful, we'll need lots of help with construction, plant propagation and planting of tubestock in the short term, and with management and seed harvest in the longer term - a great job for anyone who finds the Reserve hills increasingly daunting and is looking for a new life on the plains.

Peter Bird

Plotting for native grasses

Just like a collection of cultivated trees is called an Arboretum, a collection of grasses is a *Graminetum*, named for their old family Gramineae. Who knew we had a Graminetum slap bang in the middle of Waite campus? Located immediately north of the Urrbrae House car park, the Graminetum consists of a grid of 50 plots, each 2 x 1-m in size and accommodating different species of native grasses.

Several plots were looking a little forlorn. Enter the Friends for a quick spring makeover. Vacant plots were weeded and tubestock from Urrbrae TAFE destined for the reserve were diverted to the Graminetum. We ultimately planted 231 tubestock of 13 local Waite grasses over three mornings in September and October comprising 10 winter-growing and three summer-growing species.

The grasses will help showcase local species and supply seed for growing tubestock and direct seeding. The plots are irrigated on a regular basis but assistance is needed with weeding and seed collection.

Are you able to go on a roster to help every month or two?

Pictured below is Windmill Grass, a summer growing species which will boom when the weather warms up.

GRASS SPECIES PLANTED
Anthosachne scabra Native Wheat-grass
Aristida behriana Brush Wire-grass
Austrostipa nodosa Tall Spear-grass
Chloris truncata Windmill Grass
Dichelachne crinita *Long-haired Plume-grass*
Microlaena stipoides Weeping Rice-grass
Neurachne alopecuroidea Fox-tail Mulga-grass
Rytidosperma auriculatum Lobed Wallaby-grass
R. caespitosum Common Wallaby-grass
R. erianthum Hill Wallaby-grass
R. racemosum Slender Wallaby-grass
R. setaceum Small-flower Wallaby-grass
Themeda triandra Kangaroo Grass

Thanks to helpers Glenn, Helen, Marg, Mary, Jennifer, Richard, Sally & Tarryn.

Pete Bird

The Importance of Under-storey for Birds

When the editor asked me to write something on bird use of native grasses and understorey plants, little did I realise what I had let myself in for. There is information on bird use of grassy woodlands and the impacts on them of habitat clearance and fragmentation but bird use of grasslands in Australia, and specifically how they use such habitats, is scarce. I searched the literature and asked colleagues and was pointed to a few overseas publications. Bird use of grasslands in the US has received some attention but in Australia research has focused on reptiles and insects in grasslands.

Any discussion of birds in grassy ecosystems (whether they be grassy woodlands or grasslands) is complicated by different bird species having different home ranges, food requirements, modes of feeding and breeding and movement patterns, as well as the site-specific nature of habitat/bird interactions. I will make general comments on birds in grassy woodlands that will partly address the issue and will highlight the complexities with case studies from the Mount Lofty Ranges (MLR).

Grassy woodlands in pristine condition generally support scattered trees and large shrubs over a rich under-storey of native grasses, lilies and forbs, which produce in the summer and autumn considerable bare ground in the inter-tussock spaces. In the winter and spring these spaces are partly taken up by plants that die down in summer, like chocolate lilies, yam daisy, orchids and many more small plants. Most of these species are perennial, even if they are only visible above ground for half the year.

After European settlement, most grassy woodlands that occurred on the better soils at lower altitudes of the MLR were cleared for agriculture and urban settlement. Less than 10% remain and these are in small fragmented pieces, too small for most woodland birds and heavily impacted by threats such as weeds and over-grazing by native and introduced herbivores. We have lost 10 bird species already and stand to lose another 50 species due to the 'extinction debt' (Paton *et al.* 1999). These include Brown Treecreeper, Restless Flycatcher, Dusky Woodswallow, Varied Sittella, Diamond Firetail, and the list goes on.

Scarlet Robin. Photographer Tom Hunt

For some species like Scarlet Robins, a perch and pounce feeder, they simply cannot see their insect prey on the ground in a woodland where the inter-tussock spaces are filled with annual grasses and weeds, often to 50cm high. This is a problem for all birds that spend time feeding on the ground, like parrots, pigeons, finches, some of the thornbills and Brown Treecreepers. For other species, issues include loss of nesting hollows either through clearance of old trees or their occupation by starlings, feral bee colonies or aggressive large parrots (eg Rainbow Lorikeets), lack of fallen timber and aggression from Noisy Miners (the native increasing honeyeater).

Of the Australian bird species that live in grasslands, the Plains-wanderer is one of the best known and studied due to its extreme rarity. But many other species feed on the ground in grassy areas and the seed-eating groups dominate here - the parrots, pigeons and finches. Other birds that commonly occur in grasslands include quails, buttonquails, pipits, larks, lapwings and pratincoles.

There are studies on individual bird species that favour grasslands or feed on grass seeds. Read (1994) investigated the diet of three finch species in South Australia – Red-browed Finch, Diamond Firetail and Beautiful Firetail. While only the Diamond Firetail is a grassy ecosystem specialist, the results indicated that all species fed on the seeds of many weed species (native and introduced) as well as indigenous species and that grass seeds made up a large portion of their diet, particularly for the first two species.

The Importance of Under-storey for Birds

A PhD thesis investigated the population of Diamond Firetails in heavily degraded grassy woodlands dominated by exotic grasses in the MLR (Hodder 2020). Due to the dominance of exotic grasses, which are predominantly annuals, food availability was seven times greater in spring than in autumn, due to the germination of grass seeds with autumn rains. This led to food scarcity for the firetails in autumn and winter, when they turned from grass seeds to the seeds of the native Drooping Sheoak *Allocasuarina verticillata*. Survival over winter was impacted by food shortages, particularly for juvenile birds, which are less efficient feeders than adult birds. Supplementary in-field feeding experiments increased survivorship over winter, particularly for first year birds. However the density of this species in the southern MLR is lower than minimum viable population estimates, and only large-scale habitat restoration involving planting of native grass species and Drooping Sheoak can reverse this decline.

These two studies show the complexity land managers need to be aware of – weed plant species are now an important part of the diets of many grassy ecosystem birds, but their dominance has negative effects for some, if not all, bird species. Site-specific research, sensitive habitat restoration and long-term monitoring of such ecosystems are essential to maintain bird populations in these important areas.

Hodder, G. V.H. 2019. *The Impact of Habitat Alteration on the Population Dynamics of a Declining Woodland Bird in the Mount Lofty Ranges.* PhD Thesis, University of Adelaide.
Paton, D.C., Prescott, A.M., Davies, R.P.-J. and Heard, L.M. 1999. The distribution, status and threats to temperate woodlands in South Australia. In *Temperate Eucalypt Woodlands in Australia: Biology, Conservation, Management and Restoration.* (Eds R.J. Hobbs and C.J. Yates) pp 57-85. Surrey Beatty & Sons, Chipping Norton NSW.
Read, J.L. 1994. The Diet of Three Species of Firetail Finches in Temperate South Australia. *Emu* 94: 1-8.

Penny Paton

Diamond Firetails. Photographer Peter Owen

A Spring Visitor
Horsefield Bronze Cuckoo

If you walked to the Netherby Lookout on any one of many days this spring you would have heard a bird calling sfwee, sfwee repeatedly. It was a Horsefield Bronze Cuckoo. The bronze part of the name comes from the iridescent sheen on their green back and wing feathers.

Like all cuckoos, it is a nest parasite and particularly targets wrens and thornbills. The female cuckoo lays just one egg in the host's nest before leaving the host to do the rearing of the young cuckoo.

Listen and look for a Horsefield Bronze Cuckoo next spring; it may return. *Clint Garrett*

Horsefield Bronze Cuckoo Photographer Aviceda

Bushcare Days

At the start of this year we re-badged our former 'Working bees' as 'Bushcare days' We did this to better reflect what we do, but also to soften the terminology in the hope of attracting more volunteers. Yes, we work, but rarely is sweat involved.

The results are in. Despite roughly equivalent weather conditions, last year's Working bees attracted an average 14 participants. This year only 10 ventured out for each Bushcare day. Perhaps I under-estimated the Friends' appetite for work. Looks like you prefer a Working Bee *workout* over a Bushcare day *doddle*!

Over the past 3 months we tackled the usual spring weeds on Quartz and Pultenaea Hills: Sparaxis, Cape Tulip, Weed Orchid and Perennial Veldt-grass. We finished off down the bottom, hand-weeding our adopted patch above Gate 82.

Bushcare days (or Working bees) recommence **Sunday 19 March**, and are held thereafter every *first Saturday & third Sunday of the month*.

In the meantime there are plenty of opportunities to help out on any cool day over the summer break. I'll email my usual call outs. Let me know if you're keen.

Thank you to the almost 70 volunteers who helped out during the year. Have a pleasant break and we'll be back bigger and better next year.

Pete Bird

Rob, Sue, Meg, Jennifer & Clint with bagged weeds

Photo Peter Bird

New Fire Fighting Gear

Savings from our Volunteer Grant allowed us to purchase a couple of new back-pack fire-fighters to assist with olive burns.

These collapsible units are far more comfortable, reliable and efficient than the old ones. Hopefully they will never get used for anything other than our controlled fires.

Burning up a hunger

More than 12 percent of the reserve is covered in a tangled, spiky nightmare of standing dead olives, thanks to five years of sustained control using Basal Bark Treatment. Put this on very steep slopes and a large chunk of the reserve becomes all but inaccessible.

Sending in the chainsaws to cut access pathways through the maze helps, but the thousands of felled olives present the ultimate trip hazard., especially in the wet.

Enter the draggers and burners. On the 6th and 13th of September, 10 Friends put in some serious work to drag up and burn several piles of olives to clear the debris for follow-up control.

Martin and Jake feed the fire

Photo Peter Bird

This year's target areas were the Western Slopes below Netherby Spur and the eastern boundary of Stone Reserve.

Bec Glover cooking the lunch-time snags. No point wasting the coals

Photo Peter Bird

Sausages cooked on the coals provided a nice lunch time break. Turns out the coals from dead olives leave a very satisfying taste in the mouth!

Thanks to Bob Geary, John & Bec Glover, Jake Howie, Rob Last, Neil Renfrey, Martin Schumacher, Simon Treloar & Kelly Wright for their hard yakka.

Peter Bird

Mowing for the environment

When you think of mowing, you probably think of your lawn in the back yard. I have expanded my "lawn" to include the verge on a section of the Waite Loop and much of my patch at the crossroads of the Waite and Sheoak Loops. Both areas have significant issues with Cape Tulip (*Morea flaccida*).

Mowed verge on Waite Loop

I had read an article about the return of butterflies to the verges of roadsides in the UK, following a change in mowing practices.
https://www.theguardian.com/environment/2020/mar/14/on-the-verge-a-quiet-roadside-revolution-is-boosting-wildflowers-aoe

I urge you to read the article and think about how the principle of reducing soil fertility to advantage native species could be more widely applied in the Reserve.

We know that in the past, Superphosphate fertilizer was used over many sections of the Reserve. My Soil Scientist friend tells me that the phosphorus is likely to be in the soil for 200-300 years unless there is a way of exporting it. The impact of that extra phosphorus on the native under-storey plants has been significant. At the same time the extra phosphorus advantages grasses such as Wild Oats *Avena fatua* and weed species such as Cape Tulip. *Morea flaccida*

Mowing my chosen areas to reduce the soil fertility seemed like a reasonable way to go.

Mowed patch near the crossroads

In spring of 2020, I mowed both sides of the Waite Loop between the crossroads and the Urrbrae Ridge turnoff. The cut was 2 passes wide, which approximates to 1metre. The clippings were dumped in just a few locations, which of course means that they are super fertile.

An extra benefit of the mowing was the reduction of Cape Tulip seeding. This is important as seed dropped along the edge of the trail can easily be moved to other areas by foot traffic.

In spring 2021, I repeated the mowing as soon as the Cape Tulips developed to the flowering stage. I also expanded my mowing efforts to include my vegetation patch adjacent to the crossroads.

This winter, the Cape tulips sprouted earlier than usual. There was a slight difference between the number on the mowed strip and the number adjacent. On the upside, there has been a big reduction on my patch where I used Tongs of Death in 2021.

I suspect that the experiment will have to run for a number of years before we see native species re-appearing on the verge. But as we can see with the reduction in olives across the Reserve, persistence pays off.

Clint Garrett

Graffiti

In the last six months there has been a spate of graffiti attacks on rock faces on the Sheoak Loop, at Harold's Lookout, in Wild Dog's Glen and at the Amphitheatre Quarry. Other targets have been a sign, a tree trunk and a trail post.

Removal of the paint has on the rock faces been a slow process. In some cases, graffiti remover has been sprayed onto the rock and then after working for 30 minutes, the paint has been wire brushed to remove it. This process has usually had to be repeated 3 times. In the case of the Amphitheatre Quarry, the graffitied rock face was painted with paint stripper, left over night and then sprayed off using a high pressure water sprayer lent by Andy Baker.

Boulder on Sheoak Loop before cleaning and 4 months after cleaning followed by repainting with lichen mix

A contractor quoted the University $7000 to remove the graffiti in the Amphitheatre Quarry. This was for an area of graffiti approximately 20 metres long X 1.5 metres high.

20 hours of volunteer effort from Andy Baker, Peter Bird, Kate Delaporte Grant Joseph, Simon Treloar and myself removed much of the "art".

The cost of this was $932.40 in labour (20 hours X $46.62) and $438 for 10 litres of paint stripper. Total cost $1370.40 – which was much more cost effective.

Amphitheatre Quarry graffiti before with Peter Bird for scale

After cleaning in the photo below.

Unfortunately the cleaning process does a lot of damage to the lichens growing on the rock. This has been offset by painting the cleaned surfaces with a mix of yoghurt, milk, yeast, spirulina, gelatine, local soil and lichen flakes.

The lichen re-growth on the earliest sites can be seen in the photograph at left. It has covered some of the damage after just a few months. Full re-growth will take years.

Clint Garrett

Blitzed It! Great Waite BioBlitz

The Great Southern BioBlitz (GSB) is an intensive biological survey of all living species carried out by citizen scientists at sites across the Southern Hemisphere each spring. This year we held the inaugural version of our own chapter, the *Great Waite BioBlitz* over three days 28-30 October. We held three organised activities – a wildflower wander on the Saturday morning, an evening spotlight and moth blitz on the Saturday night and a mini-beast walk on the Sunday morning.

Wooly Bees asleep in a Common Buttercup

Our plan was to let loose a multitude of people on the reserve to record as many different species as possible on the *iNaturalist* App. Participation was a little underwhelming, with only 14 attendees across all activities.

Despite this, we were each able to try out the App and ultimately added a reasonable tally of **340 observations of 98 species** during the 3-day Blitz – including those pictured. People have continued to contribute, with 1220 observations of 420 species recorded at the latest count. Check out the current list here:

https://www.inaturalist.org/projects/waite-conservation-reserve-south-australia

Tall Bluebell widespread this year in the Reserve

iNaturalist is simply an extraordinary App. Within a few seconds, its artificial intelligence algorithms identify your photos – plants, animals or fungi – with extraordinary accuracy based on a combination of looks and location. If you don't know the species, chances are an online 'verifier' will email you in the next day or two confirming the species you have seen.

Not only is this a great way of contributing to scientific knowledge of the reserve but is an amazing tool to learn about the natural world.

Pete Bird

Painted Lady Butterfly

Fungal Matters

Pilobolus—the hat thrower

The 'hat thrower' fungus can be found on the dung of mainly grass gazing herbivores. *Pilobolus* species have an extremely interesting life cycle and are well-known for their unique spore dispersal mechanism. *Pilobolus* begins its life cycle as a black sporangium (or a spore packet/hat) waiting on grass to be eaten by a Kangaroo or any other herbivore.

Once eaten, the grass with the sporangium passes through the digestive system without germinating and is excreted in the dung. It is thought that the 'heat treatment' of passing through the gut helps the spores break dormancy. Once in dung, spores within a black sporangium germinate and grow as a mycelium, feeding on the nutrients by rotting the dung/grass. After less than a week,*Pilobolus* produces more spore packets.

Pilobolus species have a very cool strategy to make sure a Kangaroo eats its black sporangia or spore packets. *Pilobolus* has photoreceptive pigments and a long flexible stalk, which ensure that the black sporangia are always pointed at light and away from dark, enclosed spaces. Once aligned with the light, *Pilobolus* shoots off black sporangia up to 2-3 m away from the dung. The sporangia land on the grass and *Pilobolus* begins its life cycle again. How *Pilobolus* species discharge their black sporangia or hats can be seen from the BBC Earth Unplugged video (https://www.youtube.com/watch?v=T8OAmcUnm4g).

Keep your eyes peeled for the dung of herbivores in the reserve a few fungi can be spotted on them! Enjoy their hunting and have a 'Clues from Poos' chart for the dung identification (Newsletter 53, Spring 2021).

Tijana Petrovic

Above and bottom left Pilobolus sp.
Tijana Petrovic photos

Mistaken identity

***Hexagonia vesparia* This has been re-identified as *Phaeotrametes decipiens*.**
INaturalist credit Peter Lang

After the WAITE CR fungi foray, we published a note in the Spring issue of the FWCR Newsletter. Some hoof-like fruit bodies with pores on an old dead drooping Sheoak (*Allocasuarina verticillata)* trunk were mistakenly identified as fruit bodies of *?Hexagonia vesparia*. Those fruit bodies were vouchered by Dr Peter Lang for the State Herbarium of South Australia, re-examined, and subsequently identified as fruit bodies of *Phaeotrametes decipiens*. More detailed information can be found in the Fungimap eNews (Fungimap eNews 56 – October 2022 (mailchi.mp)).

Tijana Petrovic

ON THE TRAIL

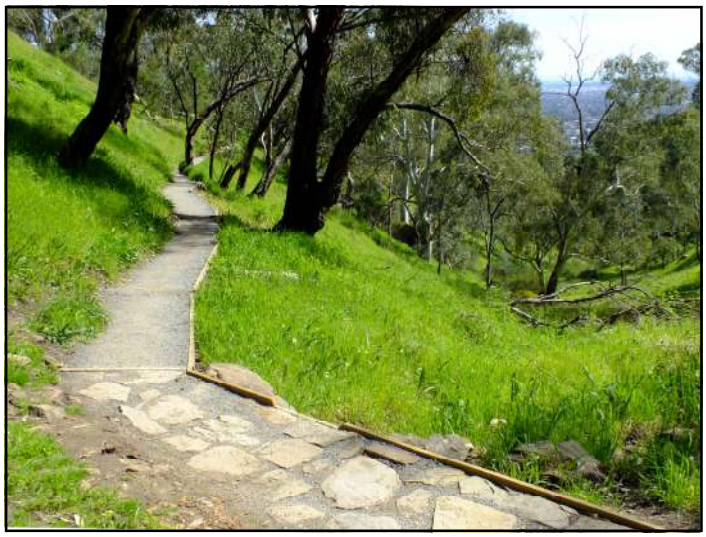
In 2022, a significant amount of work has been done to improve the safety of the Waite Loop in the Netherby Gully section. This part of the trail has steep drop-offs of up to 45 degrees below the trail. It is clear that walkers have slipped off the trail as they try to pass others heading in the opposite direction.

In total 210 metres of timber has been placed along the edge of the trail and the trail was corrected to a 5 degree off slope. In places this was 19 degrees before correction, which helps to explain why people were slipping off. A total of 11 tonnes of dolomite has been laid to provide a good walking surface. Many walkers have remarked positively about these changes.

I have been assisted by John Glover, Roger Anastasiou and Glenn Gale in these works.

In some places getting material from vehicle to trail has been difficult because of the steep slope in between where the vehicle is and the trail below. A solution was to set up a flying fox and deliver 1.7 tonnes to the trail by using it, instead of carrying the buckets on steep and slippery slopes. The work was done over 2 days, with Glenn at the lower end of the system on one day and Roger on another. Loaded buckets went down, empty buckets came back up to be refilled. My years of setting up rope work for Outdoor Education students was put to use. The main line was a 3 tonne breaking strain rope with a light weight line used to haul the empty buckets back up.

Dolomite is heavy, specific gravity 2.83. Each half filled bucket load weighs about 15 kilograms which means that about 110 flying fox trips were made for this part of the work.



In Netherby Gully where the creek line crosses the trail, the area was eroded and rocky. In May one of our walkers slipped there and badly sprained his ankle. The crossing has now been made safer by leveling it and installing a stone paved causeway. You can also see the re-leveled trail in the photograph.

In Wild Dogs Glenn, six more steps like these have been placed in recent times to improve safety. Each step is filled with dolomite and has paving stones to provide a long lasting walking surface.

Clint Garrett

New Table and New Seat

Randell's table

Walkers on the Waite Loop will have seen that a new table and seat have been installed on the trail. Near Stop 8: Mistletoe.

The table commemorates Randell Taylor, a member of the Australian Wine Research Institute, who was killed while cycling late 2021.

Randell was a frequent user of the Reserve as he was an active trail runner, which is why AWRI staff felt that it would be appropriate to memorialize him by placing a table near the trail that he used so often.

AWRI staff donated money to buy the table setting, tree guards and plants to improve the landsc.ape around the table. On November 3rd, we had AWRI staff and Randell's parents help with doing the table set up, laying the trail to connect the Loop Trail to the table and digging the holes for plants. Five staff and Randell's brother helped on the 4th to finish the setup and to put tree guards around the new plants.

Clint has made up a 3x3 metre frame to contain the dolomite and Peter Bird has helped him to fill and level the site.

Many thanks to Marlize Becker and Neil Scrymgeour from AWRI for organising the table project.

The table setting and some of the AWRI staff who helped to make it possible. The site has a wonderful view.

Alice & Bek's Seat

Alice Rolls and Bek Burchall are two of our regular walkers and have donated the money to buy a seat for the Reserve.

The seat has been installed by them with help from Jeff Glasson and Clint. The view from their chosen location on the Southern Boundary Trail is a good one.

Bek and Alice with their newly installed seat

M O R E W A L K E R S

The number of walkers in the Reserve continues to increase in spite of the miserable weekend weather that we have had in Spring.

Clint Garrett

	2021	2022
April	3037	4555
May	2894	3378
June	2968	3868
July	3087	4563
August	4645	4021
September	4299	4431
October	4745	4467
November	2876	3032
Total	**30572**	**34337**

Waite Conservation Reserve App

The Waite Conservation Reserve App was developed to enhance visitor safety and experience.

The app provides navigation aids, with high resolution aerial image background map screens showing all the major trails and minor tracks.

A blue location dot in mobile devices shows users where they are within the Reserve and facilitates choice of trails to follow.

The main map screen '*Where Am I*' function will locate the visitor within the Reserve and clearly shows all the entry / exit gates, with emergency service vehicle access gates indicated with red vehicle icons. This will enable Security /emergency services to be directed to the closest access point for any situation that may occur where their services are needed.

Various features are also displayed in the map screens with picnic tables and bench seats included along with the names of donors that have provided funding for these facilities.

Information signs located within the Reserve have icons, which if tapped will provide further information on the various ecological and historical values of specific locations and plant communities, along with images and descriptions of local fauna and flora within the Reserve.

Fred Agius Marian McDuie and Jennifer Gardner Photo Glenn Gale.

Waite Reserve App Icon

This detailed information will allow visitors to better understand the Grey Box Grassy Woodland - a Nationally Threatened Ecological Community, and the efforts to conserve and restore the integrity of this community. Over the last 30 years volunteers and contractors have removed dense thickets of olive trees and implemented re-vegetation.

One of the unique features of the Waite Conservation Reserve App is the inclusion of audio files of Kaurna words that relate to natural features within the Reserve. These files are indicated with headphone icons and are located at appropriate places. The words are spoken and recorded by local Kaurna people and were provided for the app by the Kaurna Warra Pintyanthi (KWP) Team based at the University of Adelaide.

The WCR App project was supported by The University of Adelaide, grants from Green Adelaide, Friends of the Waite Conservation Reserve and Friends of the Waite Arboretum, and a private donation.

The app has been designed to work on both Apple and Android devices and is available from the respective app stores for free download. The official launch of the app was done in Wild Dogs Glen on 23rd November with a smoking ceremony by Kaurna elder Fred Agius.

Jennifer Gardner & Marian McDuie

Pete's Nature Diary

Choughs back with a bonus

After seeing our first ever mob of (13) ***White-winged Choughs*** in April 2020, I mused whether they might stay. They didn't. But on our Bushcare day 21 August we heard their distinctive whistling cries coming from the lower slopes of Quartz Hill. Not only were they back, but they had built a large mud nest and a bird was already in residence. That she was sitting on eggs was confirmed 3 weeks later when young could be seen protruding above the rim. By early October there was a least one fledged young bounding around with the other half dozen group members. I wonder if they'll stay now?

White-winged Chough & nest, Quartz Hill. David Gunner photo

What a caper

Male Caper White butterfly on Native Orange larval food plant in Waite Arboretum Peter Bird photo

Since October the reserve has hosted thousands of white butterflies. On the wing you might confuse them with pesty Cabbage Whites, but they are a little bigger and have black and yellow markings.

These are ***Caper White butterflies*** so-named for their caperbush larval food plants. In SA their main food plant is Wild Orange *Capparis mitchellii* which, at its nearest, grows 400 km away in the North Flinders Ranges. In big rainfall years these butterflies undergo huge migrations including south to Adelaide where, bafflingly, there are no food plants e*xcept* for a few Wild Oranges planted in the Waite Arboretum. In years like this these trees cop a hammering from the Caper Whites, their leaves are often covered in eggs, caterpillars and pupae. Finding the plants is usually quite easy – just look for the cloud of white butterflies sailing above

Ringtail housing crisis

Common Ringtail Possums have two options when it comes to a home. They either use tree hollows or build a nest or 'drey' of sticks and leaves. Research suggests ringtails build dreys when tree hollows are in short supply. I'd never seen a drey in the Reserve despite estimates of up to 1000 ringtails present (*FWCR Newsletter Autumn, 2005*). That was until recently when I encountered this basketball-sized construction in a Netherby Gully Grey Box. Maybe there is a Ringtail housing shortage due to over-population resulting from the fantastic seasonal conditions we're having.

Ringtail possum drey Peter Bird photo

Peter Bird

Perennial Veldt-grass *Ehrharta calycina*

This issue's weed is a grass, one of 35 species of introduced weedy grasses recorded in the Reserve. Most are annual but a few are perennial, including this one.

Introduced from South Africa, Perennial Veldt-grass is restricted to localised parts of the Reserve but has proven a formidable foe! It is still present after two decades of ongoing control and spreading!

Identification

Plant: tall erect tussock to 1 metre
Stems: long & thin with hairless reddish nodes
Leaves: bluish-green, purple at base
Seed heads: tall, loose, pinkish panicle
Roots: radiating rhizomes
Similar species: like Annual Veldt-grass *Ehrharta longiflora* which is greener, bushier & more widespread, especially under trees.

Current location

A long-standing infestation occurs on the summit of Quartz Hill, extending south and west of the big pylon.
A second outbreak was discovered in central southern Stone Reserve recently.

Monitoring & control

Check Quartz Hill infestation every week or two from late Sept-Jan.
Tussocks often grow among other plants. Follow stems down to the base & cut off plant with a sharp knife at least 5 cm below ground level or prise out with a weeder to stop rhizomatous roots regrowing. Bag & dispose of in green bin.

Keep an eye out elsewhere in the Reserve & report any new infestations.

Peter Bird

MEMBERSHIPS ARE DUE

Our membership year is a calendar year, which means that memberships will come due on January 1st. It is vitally important that we have your membership even if you can't get along to Bushcare days.

Why? Because we need to have at least 50 members in order to be a Direct Gift Recipient ie for your membership or for donations to be tax deductible.

Renewing is easy. Go to the Friends website: https://friendsofwaitereserve.org.au and click on the Membership link. This will link you to a PDF form that you can fill in and electronically pay your subscription, that's how I did mine.

Alternatively you can download the form, fill it in and post it with a cheque if you like to do things that way.

Memberships are $15 for individuals and $20 for families .

Clint Garrett

YOUR MEMBERSHIP MATTERS

Simon Treloar using high pressure water to remove graffiti which had been previously painted with paint stripper.

Thanks to Andy Baker for the use of the high pressure unit

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